## ATTORNEY DOCKET NO. 07083.0008U5

## SEQUENCE LISTING

```
<110> Dixon, Eric
   Hutchins, Jeff T.
   Kuettner, Klaus E.
   Schmid, Thomas M.
   Schumacher, Barbara L.
   Su, Jui-Lan
```

<120> SUPERFICIAL ZONE PROTEIN AND METHODS OF MAKING AND USING SAME

```
<130> 07083.0008U5
<150> 60/258,920
<151> 2000-12-29
<160> 11
<170> FastSEQ for Windows Version 4.0
<210> 1
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<212> PRT
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<223> Description of Artificial Sequence; note =
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<400> 1
Asp Glu Ala Gly Ser Gly
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Met Ala Trp Lys Thr Leu Pro Ile Tyr Leu Leu Leu Leu Ser Val
                                    10
Phe Val Ile Gln Gln Val Ser Ser Gln Asp Leu Ser Ser Cys Ala Gly
                                25
Arg Cys Gly Glu Gly Tyr Ser Arg Asp Ala Thr Cys Asn Cys Asp Tyr
                            40
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```
Asn Cys Gln His Tyr Met Glu Cys Cys Pro Asp Phe Lys Arg Val Cys
                        55
Thr Ala Glu Leu Ser Cys Lys Gly Arg Cys Phe Glu Ser Phe Glu Arg
Gly Arq Glu Cys Asp Cys Asp Ala Gln Cys Lys Lys Tyr Asp Lys Cys
Cys Pro Asp Tyr Glu Ser Phe Cys Ala Glu Val Lys Asp Asn Lys Lys
                                105
            100
Asn Arg Thr Lys Lys Pro Thr Pro Lys Pro Pro Val Val Asp Glu
                            120
Ala Gly Ser Gly Leu Asp Asn Gly Asp Phe Lys Val Thr Thr Pro Asp
                        135
                                            140
Thr Ser Thr Thr Gln His Asn Lys Val Ser Thr Ser Pro Lys Ile Thr
                                        155
                   150
Thr Ala Lys Pro Ile Asn Pro Arg Pro Gln Ser Ser Pro Asn Ser Asp
                165
                                    170
Thr Ser Lys Glu Thr Ser Leu Thr Val Asn Lys Glu
            180
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<210> 3 <211> 538

<212> PRT

<213> Artificial Sequence

<220>

Pro Thr Thr Ile His Lys Ser Pro Asp Glu Ser Thr Pro Glu Leu Ser 10 Ala Glu Pro Thr Pro Lys Ala Leu Glu Asn Ser Pro Lys Glu Pro Gly Val Pro Thr Thr Lys Thr Pro Ala Ala Thr Lys Pro Glu Met Thr Thr 40 Thr Ala Lys Asp Lys Thr Thr Glu Arg Asp Leu Arg Thr Thr Pro Glu 55 Thr Thr Thr Ala Ala Pro Lys Met Thr Lys Glu Thr Ala Thr Thr Thr 70 75 Glu Lys Thr Thr Glu Ser Lys Ile Thr Ala Thr Thr Thr Gln Val Thr 90 85 Ser Thr Thr Thr Gln Asp Thr Thr Pro Phe Lys Ile Thr Thr Leu Lys 105 Thr Thr Leu Ala Pro Lys Val Thr Thr Thr Lys Lys Thr Ile Thr Thr 120 Thr Glu Ile Met Asn Lys Pro Glu Glu Thr Ala Lys Pro Lys Asp Arg' 135 Ala Thr Asn Ser Lys Ala Thr Thr Pro Lys Pro Gln Lys Pro Thr Lys 150 155 Ala Pro Lys Lys Pro Thr Ser Thr Lys Lys Pro Lys Thr Met Pro Arg 170 165 Val Arg Lys Pro Lys Thr Thr Pro Thr Pro Arg Lys Met Thr Ser Thr 180 185

Met Pro Glu Leu Asn Pro Thr Ser Arg Ile Ala Glu Ala Met Leu Gln 200 Thr Thr Thr Arg Pro Asn Gln Thr Pro Asn Ser Lys Leu Val Glu Val 215 220 Asn Pro Lys Ser Glu Asp Ala Gly Gly Ala Glu Gly Glu Thr Pro His 230 Met Leu Leu Arg Pro His Val Phe Met Pro Glu Val Thr Pro Asp Met 245 250 Asp Tyr Leu Pro Arg Val Pro Asn Gln Gly Ile Ile Ile Asn Pro Met 265 260 Leu Ser Asp Glu Thr Asn Ile Cys Asn Gly Lys Pro Val Asp Gly Leu 280 Thr Thr Leu Arg Asn Gly Thr Leu Val Ala Phe Arg Gly His Tyr Phe 300 295 Trp Met Leu Ser Pro Phe Ser Pro Pro Ser Pro Ala Arg Arg Ile Thr 310 315 Glu Val Trp Gly Ile Pro Ser Pro Ile Asp Thr Val Phe Thr Arg Cys 325 330 Asn Cys Glu Gly Lys Thr Phe Phe Lys Asp Ser Gln Tyr Trp Arg 345 Phe Thr Asn Asp Ile Lys Asp Ala Gly Tyr Pro Lys Pro Ile Phe Lys 360 Gly Phe Gly Gly Leu Thr Gly Gln Ile Val Ala Ala Leu Ser Thr Ala 375 Lys Tyr Lys Asn Trp Pro Glu Ser Val Tyr Phe Phe Lys Arg Gly Gly 395 390 Ser Ile Gln Gln Tyr Ile Tyr Lys Gln Glu Pro Val Gln Lys Cys Pro 405 410 Gly Arg Arg Pro Ala Leu Asn Tyr Pro Val Tyr Gly Glu Met Thr Gln 425 Val Arg Arg Arg Phe Glu Arg Ala Ile Gly Pro Ser Gln Thr His 440 Thr Ile Arg Ile Gln Tyr Ser Pro Ala Arg Leu Ala Tyr Gln Asp Lys 455 460 Gly Val Leu His Asn Glu Val Lys Val Ser Ile Leu Trp Arg Gly Leu 470 475 Pro Asn Val Val Thr Ser Ala Ile Ser Leu Pro Asn Ile Arg Lys Pro 485 490 Asp Gly Tyr Asp Tyr Tyr Ala Phe Ser Lys Asp Gln Tyr Tyr Asn Ile 505 500 Asp Val Pro Ser Arg Thr Ala Arg Ala Ile Thr Thr Arg Ser Gly Gln 520 Thr Leu Ser Lys Val Trp Tyr Asn Cys Pro 535 <210> 4 <211> 3 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence; note = synthetic construct

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<222> 2
<223> Xaa is any amino acid except Pro
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<222> 3
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<400> 4
Asn Xaa Xaa
<210> 5
<211> 488
<212> .DNA
<213> Artificial Sequence
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<400> 5
                                                                        60
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atcagcgtga ggagagtggg agggatttag gatccactga acgtgttaaa cgtcacatac
                                                                       120
tgggtgtgcc tgtttaagga gctgactcgg gcttccgtaa ggcgcgcttg atcctcggag
                                                                       180
gggggggtgg acgcgccca agtagaatat acagtgtgtc cgttagaggt ttctgtgcag
                                                                       240
aagtaaaaga taacaagaag aacagaacta aaaagaaacc tacccccaaa ccaccagttg
                                                                      .300
tagatqaagc tggaagtgga ttggacaatg gtgacttcaa ggtcacaact cctgacacgt
                                                                       360
ctaccacca acacaataaa gtcagcacat ctcccaagat cacaacagca aaaccaataa
                                                                       420
                                                                       480
atcccagacc ccagtcttca cctaattctg atacatctaa agagacgtct ttgacagtga
                                                                       488
ataaagag
<210> 6
<211> 1620
<212> DNA
<213> Artificial Sequence
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cctaccacta tccacaaaag ccctgatgaa tcaactcctg agctttctgc agaacccaca
                                                                        60
ccaaaagctc ttgaaaacag tcccaaggaa cctggtgtac ctacaactaa gactcctgca
                                                                       120
qcqactaaac ctqaaatqac tacaacagct aaagacaaga caacagaaag agacttacgt
                                                                       180
actacacctg aaactacaac tgctgcacct aagatgacaa aagagacagc aactacaaca
                                                                       240
gaaaaaacta ccgaatccaa aataacagct acaaccacac aagtaacatc taccacaact
                                                                       300
caagatacca caccattcaa aattactact cttaaaacaa ctactcttgc acccaaagta
                                                                       360
actacaacaa aaaagacaat tactaccact gagattatga acaaacctga agaaacagct
                                                                       420
aaaccaaaag acagagctac taattctaaa gcgacaactc ctaaacctca aaagccaacc
                                                                       480
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aaagcaccca aaaaacccac ttctaccaaa aagccaaaaa	caatgcctag	agtgagaaaa	540
ccaaagacga caccaactcc ccgcaagatg acatcaacaa	tgccagaatt	gaaccctacc	600
tcaagaatag cagaagccat gctccaaacc accaccagac	ctaaccaaac	tccaaactcc	660
aaactagttg aagtaaatcc aaagagtgaa gatgcaggtg	gtgctgaagg	agaaacacct	720
catatgette teaggeecea tgtgtteatg cetgaagtta			780
ccgagagtac ccaatcaagg cattatcatc aatcccatgc			840
tgcaatggta agccagtaga tggactgact actttgcgca			900
cgaggtcatt atttctggat gctaagtcca ttcagtccac			960
actgaagttt ggggtattcc ttcccccatt gatactgttt			1020
ggaaaaactt tcttctttaa ggattctcag tactggcgtt	ttaccaatga	tataaaagat	1080
gcagggtacc ccaaaccaat tttcaaagga tttggaggac			1140
gcgctttcaa cagctaaata taagaactgg cctgaatctg	tgtattttt	caagagaggt	.1200
ggcagcattc agcagtatat ttataaacag gaacctgtac			1260
cctgctctaa attatccagt gtatggagaa atgacacagg	ttaggagacg	tcgctttgaa	1320
cgtgctatag gaccttctca aacacacac atcagaattc			1380
gcttatcaag acaaaggtgt ccttcataat gaagttaaag			1440
cttccaaatg tggttacctc agctatatca ctgcccaaca			1500
gattactatg ccttttctaa agatcaatac tataacattg			1560
agagcaatta ctactcgttc tgggcagacc ttatccaaag t			1620
3 3 3 3 3 3		_	•
<210> 7			
<211> 24			
<212> DNA			
<213> Artificial Sequence			
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synthetic construct			
<400> 7			
atggcatgga aaacacttcc catt 24			
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<210> 8			
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<400> 8			
ctaaggacag ttgtaccaga cttt			24
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synthetic construct			

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<400> 9
Phe Ala Cys Glu
<210> 10
<211> 8
<212> PRT
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<400> 10
Val Lys Asp Asn Lys Lys Asn Arg
                 5
<210> 11
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence; note =
      synthetic construct
<221> VARIANT
<222> 8
<223> Xaa is either Thr or Pro
<400> 11
Lys Glu Pro Ala Pro Thr Thr Xaa
1 5
2
5
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ATTORNEY DOCKET NO. 07083.0008U5